

# Reframing one's teaching: Discovering our teacher selves through reflection and inquiry

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## Abstract

Learning to teach is a highly complex and multidimensional process. This self-study, conducted collaboratively by a preservice teacher and a teacher educator, traces one preservice teacher's development and growth over a 2-year period. The study examines the complexities of learning to teach, as well as the complexities of assisting preservice teachers on their journey to becoming teachers. The data were derived from multiple sources including observation notes, journal reflections, dialogue journals, and the student's action research/self-study paper. The results provide insight into how preservice teachers think, the conflicts they experience, the fears they encounter, and the benefits they derive from systematically examining their teaching and their students' learning. The article describes specific attitudes and dispositions that can impact growth and development. In addition, it discusses a variety of activities to foster reflection and inquiry.

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## 1. Introduction

“The journey of discovery consists not in seeking new landscapes, but in seeing them with new eyes” (Marcel Proust). This quote is posted on my university office door. I thought I understood what these words meant until recently when one of my preservice teachers helped me see “with new eyes”.

This is a story of discovery. It is a story that resulted from a challenging, and at times, frustrating journey with one of my students. Bruner (1990) believes that creating stories is a human and natural response for making meaning or comprehending events in our lives. He argues that stories are often created around puzzling, surprising, confusing or frustrating episodes in our work. This story was created as a result of a confusing, challenging experience. Conle (2003) contends that the act of telling one's story is very important because we may come to understand our own story anew through the retelling. Researchers have

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reported on the power of narrative in making students' lives more meaningful as well as influencing changes in their personal and professional lives (Conle, 1999; Postman, 1995).

The story starts with Ryan, my student. During his 2 years in the Master of Education in Teaching (MET) program, Ryan struggled to find his identity as a teacher. His story of professional growth and development as a teacher represents a highly complex, emotional, and personal roller coaster ride. Intertwined with Ryan's story is my story. As Ryan systematically examined his teaching experiences, I had the opportunity to use his journey as a mirror to reflect on my work as a teacher educator. This study represents a unique opportunity to gain insight into my teaching and my student's learning through a collaborative self-study.

Ryan's honest, reflective account of his struggles in the program became a vehicle for Ryan and I to closely examine the process of learning to teach. It was because of his desire to reflect and inquire into his teaching that I was able to reflect upon his thoughts, learn from him, and come to a deeper understanding of the struggles and obstacles in which student teachers engage.

Ryan's inquiry combined the methodologies of action research and self-study as a means of examining his practice. The object of his action research was himself and his teaching experiences. In his paper, written after he completed the program, Ryan stated:

Only recently I learned to appreciate the value and importance for a good teacher to reflect on himself or herself. Reflection was difficult for me because it did not conform to my scientific paradigm.

Ryan's honest reflections provided me with the opportunity to hear what he was thinking and feeling. Through multiple data sources, we had the opportunity to revisit events and incidents that occurred over the 2-year period and to frame and reframe (Schön, 1983, 1987) those events. We had the opportunity to co-construct a knowledge of our teaching practice.

An important reason for telling this story is to invite the reader to see connections to similar

experiences and gain deeper insight into the complex nature of learning to teach. This self-study helped me see more clearly the kinds of individual challenges and private struggles student teachers encounter. Gaining insight from the preservice teacher's perspective helped me reframe my thinking about my role as a teacher educator and better understand the barriers to learning that some preservice teachers encounter.

## 2. Background

Ryan was a student in the 2-year MET program at the University of Hawaii. The MET program consists of university-based professional studies seminars, field-based experiences, and site-based seminars. The program emphasizes inquiry, reflection, and collaboration, and involves extensive field experiences in the context of a professional development school setting.

The (MET) preservice teachers spend three semesters at the professional development school and are considered junior faculty. During the first semester, preservice teachers observe and participate in a variety of classrooms, and interact with the teachers and students. In the second semester, preservice teachers continue to participate in the schools for 15 h/week and teach two 3-week units. During the third semester they teach three classes for the entire semester under the guidance of a mentor teacher. The fourth semester consists of a paid internship in which students are placed in openings in the Department of Education schools and teach full time. During their internship, the preservice teachers receive support and guidance from two intern mentors and the university professor.

I am one of the three faculty members who teaches full time in the program. The MET faculty teach core courses, advise students, and supervise the preservice teachers for 2 years. Since the program is small, the faculty get to know all of the students well. A primary objective of the program is to weave theory and practice together throughout the four semesters. This is enhanced by immersing the students in partnership schools from the beginning of the program. The program is small and cohesive and the faculty work closely

together and share similar philosophies about teaching and learning. For example, the faculty believe in having a flexible, student centered curriculum in which the questions and problems that arise in the field become the focus of the students' inquiry and research. The faculty connect what the student is experiencing in the field with what is being discussed in the university seminars.

A primary goal of MET is to help students construct knowledge as they inquire, reflect, and collaborate with peers, mentor teachers, and university faculty. The students are encouraged to make connections and construct meaning from all of their experiences, reflections, readings, presentations, and conversations. The ultimate goal of MET is to develop teachers who are problem posers, problem solvers, and ultimately, reflective practitioners (McEwan, 1996).

Considerable research has been devoted to the study of how to best prepare preservice teachers (Ashton, 1996; Berry & Loughran, 2002; Korthagen, Kessels, Koster, Lagerwerf, & Wubbels, 2001; Russell, 2002; Tom, 1997). The MET program has been guided by the work of researchers in the areas of reflection, action research, and professional development schools. The following research provides a foundation for the program.

- Classrooms and schools are viewed as “research sites and sources of knowledge that are most effectively accessed when teachers collaborate, interrogate and enrich their theories of practice” (Cochran-Smith & Lytle, 1993, p. 63). Students integrate theory and practice by researching and reflecting upon school and classroom teaching.
- New understandings are expected to result from the process of reflective inquiry (Dewey, 1929).
- An inquiry-based approach, designed to promote reflection and critical thinking skills, actively involves the students in their learning and makes them responsible for their learning (Cochran-Smith, 1991; Schön, 1983).
- Teacher development and learning require problem identification and problem solving through continuous reflection and professional inquiry into one's practices (Schön, 1983, 1987).

- Learning is an experienced-based activity and is constructed by each individual based on one's experiences and background (Myers & Simpson, 1998; Schön, 1987).
- Real world problems provide the trigger for inquiry and reflection (Boud & Feletti, 1991). Students do not receive knowledge passively but rather discover and construct knowledge through learning activities.

### 3. Recent research on reflection

Research in the area of reflection correlates well with the principles of the MET program. Like the MET program, many teacher education programs stress processes that foster reflective capabilities of observation, analysis, interpretation, and decision-making (Duckworth, 1987; Richardson, 1989; Zeichner & Liston, 1987). This view of the teacher is one of an inquirer who is constantly striving to make sense of her practice and her students' learning. Zeichner (1996) believes that reflection is an essential component for bringing understanding to the complex nature of classrooms. Munby and Russell (1990) believe that through reflective practice, teachers reinterpret and reframe their experiences from a different perspective. All of these researchers point to the importance of reflection in helping to make sense of the complexities of teaching. Feiman-Nemser (1990) and Schön (1983, 1987) argue that reflection should be a standard professional disposition for all teachers. It is believed that through reflection, teachers participate consciously, and creatively in their own growth and development (Schön, 1987; Zeichner, 1999).

The movement toward developing reflective practitioners has led to a body of research which focuses on the teacher as researcher, as an inquirer into her own practice (Cochran-Smith & Lytle, 1993; Dewey, 1933; Schön, 1983; van Manen, 1991). Darling-Hammond (1994) describes the new paradigm of teacher learning as a place in which opportunities are provided for students to learn by teaching, learn by doing, and learn by collaborating. Cochran-Smith (1991) argues that it is important for students who are learning to

become teachers to participate in reflective conversations with teachers about the process of teaching and learning. The research of Schön (1983, 1987), Darling-Hammond (1994), and Cochran-Smith (1991) have influenced and shaped the MET program as well as the practices and experiences of the preservice teacher in this study. This case study focuses on the important role reflection can play in helping preservice teachers frame and reframe their thinking in order to improve their teaching and their students' learning. In addition, the study is guided by the work of Connelly and Clandinin (1994), who show how reading and writing one's own narrative of practice helps us arrive at a deeper understanding of ourselves and our practice.

#### 4. Method

Data for this study were collected over a period of 2 years. The data were derived from multiple sources including my observation notes, journal reflections, conversations, videotaped analyses of teaching, mentor's dialogue journal, individual assignments, and Ryan's action research/self-study paper. Ryan's reflective action research paper was written after he successfully completed his fourth semester internship.

Ryan wrote his action research paper as a way of understanding himself as a person and as a professional. In his own words he stated:

I began my paper by reflecting on how my teaching affected my students' learning. As the reflections intensified, my paper evolved into thoroughly examining my student teaching experience and myself. I personalized my master's paper by looking at who I am and how it affected my student teaching. I sacrificed an admirable topic on assessment for a deeper and more meaningful topic.

A dialogue journal log was maintained by the mentor teacher, myself and Ryan throughout Ryan's student teaching (third semester). Included in the entries were positive feedback, objective observational feedback, questions, and suggestions. I read the log each time I observed a lesson

and added my comments. Although the log was intended to be interactive, Ryan responded only occasionally to our questions or comments.

As part of the third semester of MET, two three-part reflections of videotaped lessons were required. The three-part reflections included anticipatory, contemporaneous, and retrospective reflection (Baird, 1990; Loughran, 1996; van Manen, 1991). Anticipatory reflection consists of the problems and solutions a teacher foresees before she or he teaches the lesson. Contemporaneous reflection concerns the thinking in the moment, on the spot changes, and the reasons for the changes made during the lesson. In retrospective reflection, the teacher reviews the videotape by writing and reflecting upon what he or she found successful about the lesson, and what he or she needs to do to improve.

#### 5. Data analysis

I read and reread my journal writings, observation notes, transcribed conversations, videotaped analyses, self-evaluations, and Ryan's action research paper. The constant comparative method of data analysis (Glaser & Strauss, 1967) was used to identify recurring themes and personal constructs that emerged from his reflections and his analysis of his experiences. Analysis of all the data sources focused on the written and oral language used when describing events, beliefs, and talking about teaching incidents (Bullough & Knowles, 1991). Findings from the data sources were integrated to provide a profile of Ryan's growth and development over the 2-year period.

The constant comparison method was also used to analyze the mentor dialogue journal. Ryan read and reread the dialogue journal to discover recurring problems and possible themes. In addition to the themes, he identified the context in which these themes occurred. Tables were constructed which identify the themes, describe the context and analyze the themes. Descriptions and analysis of the themes are shown in Table 1 in Section 8.

In addition to the dialogue journal, Ryan analyzed two of his videotapes (one from the

third semester and one from the fourth semester) to compare and contrast his teaching development. The videotapes were analyzed to identify recurring themes. Descriptions and analyses of the themes are shown in [Tables 2 and 3](#) in Section 8.

The results of the analyses of the multiple data sources will be discussed in the following sections. The first section will include a chronological profile developed from the observations, conversations, journals, and Ryan's paper. The next section will discuss the themes that emerged from the data analysis. And finally the tables constructed by Ryan using the data derived from the dialogue journal and videotapes will be presented and discussed.

## 6. Context

The following chronological profile provides a context for Ryan's growth and development over the 2-year period. Brief descriptions of his perceptions and attitude are included to provide background. The profile charts Ryan's journey: the challenges and obstacles he encountered, and his growth and development.

### 6.1. First semester

During the first semester preservice teachers spend 12 h/week for 15 weeks in the partnership school developing a knowledge base of pedagogical practices and principles, reflecting on their observations and participation, connecting theory with the practice, and developing an understanding of the culture of the school. Since the MET program emphasizes inquiry, reflection, and collaboration, there are a variety of activities I introduce to foster reflection and inquiry. Students are required to maintain a reflective journal, to conduct focused observations and develop critical incidents based on real life classroom experiences. MET students investigate the organization of the school through their inquiry projects and portrait research. The portrait is modeled on the work of [Lawrence-Lightfoot's \(1983\)](#) portraiture methodology as described in her book, "The Good High School".

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Ryan's first semester was marked by a keen interest in learning, as shown by his willing attitude and well written papers and presentations in his university courses. His beliefs paper, inquiries, and action research project revealed that he had a clear idea of the type of teacher he wanted to be. He believed in "hands on" participatory learning. He was interested in motivating his students "by creating activities and assignments which involved the learners and would promote the joy of learning". He stated that he did not believe in lecturing to the students.

During his field-based experiences he engaged in extensive observation and participation in the classrooms. He enjoyed interacting with individual students; his participation throughout the school and in seminars was marked by a comfortable relationship with his fellow cohort members and mentors. Although he was not as outgoing as many of the other preservice teachers in the cohort, he took initiative and appeared to be making normal progress during the first semester. He worked well with other students in the cohort and with the students and teachers at the partnership school. He exhibited an enthusiastic attitude about teaching, contributed valuable ideas in seminar, and successfully completed seminar assignments and field-based requirements.

### 6.2. Second semester

In the second semester, the focus of the field experiences involves increased participation in the classroom. Students develop lessons and unit plans and work with two mentor teachers. During most of the second semester Ryan continued to exhibit a positive attitude. He planned and taught two 3-week units. The planning for the units was done collaboratively with two different mentor teachers. In his first unit teaching experience, Ryan developed a comfortable relationship with his mentor teacher and had a successful experience. In his second unit teaching experience, indications of anxiety began to emerge. Ryan saw his teaching experience in a more negative light than his mentor. Although the mentor's comments were



quite supportive and positive, Ryan's self-evaluation was very negative. By the end of his teaching unit, Ryan felt frustrated. On his final narrative evaluation at the end of the second semester, Ryan wrote:

For my unit I had students that were not motivated by my teaching. They continuously grumbled and argued about the amount of work that I assigned them. Their frustrations turned into mumbling on how much I was a bad teacher. This severely shell-shocked the image of the masterful teacher I saw myself. At the end of the unit, I doubted whether I wanted to become a teacher. These doubts continued even as I began my third semester in MET.

It appeared from Ryan's self-evaluation that his idealized view of teachers and students was shattered. He was concerned and preoccupied with how the students viewed him. His concerns in his self-evaluation were directed at his students, not his teaching. He began to question his desire to be a teacher. His enthusiasm was replaced with disappointment, fear, and skepticism. His behaviors and feelings were similar to the first stage of development outlined by [Piland and Anglin \(1993\)](#) in which preservice teachers experience anxieties about teaching as a result of their fears, uncertainty, and lack of confidence.

In order to allay his fears, I continued to encourage him and remind him that an important aspect of teaching is to find one's own style of teaching rather than to try to be like a particular mentor. After completing his second teaching unit, I suggested that he observe several different teachers to identify instructional and management strategies compatible with his beliefs. His reaction to my suggestion surprised me. He stated that he did not think he could learn anything from teachers who were not in science or math. He was not open to observing other teaching/instructional styles of non-science teachers. This response was an indication of his lack of open-mindedness ([Dewey, 1933](#)).

Although he expressed a resistance to reflecting and maintaining a journal, He did reflect on his teaching performance by analyzing a videotaped lesson of his teaching. However, his reflections

were superficial. For example, he stated that the reason the students were misbehaving was because it was raining. This and other comments indicated that he attributed the students' behavior to variables that were out of his control. His analysis did not reach the level of many of the other student teachers who reflected honestly on the video and identified things that they should do differently.

Ryan's resistance to reflect on his teaching was a red flag, which at the time, I chose to ignore. I decided the best thing to do was to encourage and support him because I wanted him to develop confidence. It was not until I read his reflective action research paper two semesters later that I realized the reasons for his negative attitude toward reflection. Ryan revealed that his attitude toward reflection was part of his belief system and was grounded in his prior experiences as a trained scientist:

I do not enjoy revealing my feelings because it goes against the image of a logical, unbiased scientist. Therefore, questioning my feelings seems unimportant and unintelligent. I can recall Dr. Freese asking how I felt during and after a lesson and not being able to answer her because I did not feel comfortable sharing my feelings.

Ryan's prior experience also influenced his view of himself as a teacher. He had high expectations for himself:

I stepped into MET with delusions of grandeur. I pictured myself wooing my students with fantastic demonstrations and teaching with universal enthusiasm. I saw myself enticing my students to learn as much as these teachers did for me.

Ryan's unrealistic expectations are similar to the concerns described by [Fuller \(1969\)](#) in his study of preservice teachers. Although I was aware that Ryan had high expectations for himself, I did not anticipate that these expectations would create serious problems for him during his third semester of student teaching. I kept thinking that it is not unusual to see many of the master's students enter the program with high expectations. On the

positive side, Ryan appeared to be committed and hard working.

### 6.3. *Third semester*

During the third semester, Ryan taught three physics classes in the classroom of a mentor teacher with whom he taught in the second semester. During the summer prior to the third semester, Ryan was expected to collaboratively plan his first unit with his mentor teacher. Although he met with his mentor teacher on several occasions in the summer, he expressed feelings of being overwhelmed by the planning and paperwork from the outset.

During the first month I visited Ryan's classroom once a week. He appeared organized, was developing a positive rapport with students, and from time to time he even exhibited a sense of humor with the students. The mentor teacher and I provided feedback in the form of a dialogue journal. Ryan was expected to read our comments and respond in the journal. After each visit, I left observation notes for Ryan and the mentor, and debriefed with Ryan. The feedback during the first month included encouragement and praise of specific teacher behaviors. At first Ryan acknowledged the words of praise and encouragement, yet at the same time he responded that he did not feel things were going well. He complained about being overwhelmed with grading, writing lesson plans, and managing student behavior. He insisted on writing very detailed lesson plans in spite of the encouragement of his mentor and myself to streamline his lesson plans. He appeared to cling to his scripted plans almost like a security blanket.

Because he was overwhelmed by his detailed lesson plans and grading, he was not turning in his reflective journal. In the dialogue journal and in our debriefing sessions, I began to ask questions to probe his thinking and his reasons behind his decision-making. The questions and the probing were designed to encourage him to think more broadly about the implications of his teaching and his students' learning. My questions met with resistance. He expressed his reluctance to reflect on his teaching because he thought it was "too touchy-feely". It became increasingly clearer that

Ryan was unwilling to reveal his feelings. This became an obstacle for Ryan because how one feels can have a dramatic impact on one's openness to learning, one's relationships with students, and on classroom climate. The art of teaching is influenced by our emotions and attitudes.

During the second month, the mentor and I began to make recommendations to address some emerging areas of concern. At the same time, I continued to help him identify and acknowledge the positive things he was doing in the classroom. I wanted him to analyze what worked and why. Ryan appeared to listen to our suggestions, yet many of the same concerns and problems were repeated again and again. As time went on, Ryan became more anxious and stressed. He did not appear to be prepared for class. Often times he would be looking for paper and other supplies after the bell rang.

I observed teaching behaviors in his classroom that were in conflict with what he stated he believed. He resorted to lecturing the students. His lectures, from time to time, were disorganized. He began to establish a highly custodial type classroom. As time went on it was evident that he was not making changes in his teaching. This behavior is similar to what Westerman (1996) found in her study of preservice teachers. In the area of student behavior, preservice teachers often ignored off task behavior, until the behavior got too obvious to ignore. At that point the preservice teachers got flustered, raised their voice or became punitive. The punitive actions resulted in losing the class and having students tune out. This same sequence occurred in Ryan's class over and over.

After one of our post-lesson conferences, I wrote in my journal, "I probed his thinking by focusing on many of the positive teacher behaviors that occurred in the lesson. I asked him why he thought certain aspects of the lesson went well. He was unable to identify anything that he had done. I continued probing to see if he could identify specific positive instructional behaviors." The result was Ryan's insistence that it does not matter what you do because it all depends on the students and their willingness to cooperate.

This is when I realized that he did not feel that he had any influence over his success or lack of

success. He did not think the teacher was a variable in students' behavior or performance. His view was that the students had control over what happened in the class, not the teacher. No wonder he was frustrated.

Ryan's comments were revealing and, at the same time, unsettling. He again indicated the lack of control he had over events in the class. I probed to find out how he would describe a cooperative student. I asked, "What would cooperation look like?" He was reluctant to "scratch beneath the surface" and describe the behaviors of the students that show cooperation.

It was not until I read his master's paper that I learned his true feelings about my inquiry. In his paper he stated, "She also enthusiastically pushed as to what I meant by cooperation. I was offended by her comments because I believed that every student knows what cooperation looks like."

I was concerned that he continued to see teaching and student behaviors through a very narrow lens. He was not willing to explore alternative explanations for the students' behavior. His perceptions of himself and teaching gradually became more and more negative, and he continued to point blame at many external factors. He blamed the students, the counselors, parents, the mentor, and me for his difficulties. It appeared as though the blaming became a way of deflecting personal responsibility. As time went on, Ryan became more and more non-responsive and he began to distance himself from his mentor. Rather than seeking assistance, he withdrew and did not ask questions nor make suggested changes. When he was not teaching, he appeared to be busy on the computer to avoid having to interact with his mentor teacher. In addition, his relationship with the other preservice teachers in the cohort and myself became more distant. He made an effort to avoid interactions.

I was concerned that his commitment to improving his teaching was minimal, and that he was just going through the motions. At our mid-term evaluation conference, I discussed whether he felt that he wanted to remain in teaching. He indicated that he always finished what he started. In November, when his teaching did not change and it was apparent that he was not incorporating

our suggestions, I told him he needed to do more than just go through the motions of teaching. I said to him, "I want you to feel empowered, to be able to identify what you did to make things go well. If you attribute everything to external variables, then you will not see the relationship between what you do and its impact on the students' behavior." The session ended with a feeling of discomfort and frustration.

In mid-November I shared my journal notes from a previous conference with him and explored his level of commitment toward teaching. It was not until I read his master's paper written at the end of the program that I found out what his thoughts and perceptions were. In his reflective self-study he explained:

My uneasiness turned into frustration once the papers to correct piled up. I practically graded half of first quarter's assignments at the end of the quarter. The amount of time I put into writing my detailed lesson plans aggravated my frustration. I soon felt being overwhelmed once the suggestions to improve made by my mentor and the co-supervisor of MET, Dr. Anne Freese, poured in. To relieve the pressure, I ignored Dr. Freese's and John's advice. Like an addictive drug, I continued to relieve my stress and avoid my problems in teaching by ignoring Dr. Freese's and John's suggestions.

Unfortunately, I did not have the benefit of his reflection at the time. I became concerned about the impact his teaching and his attitude were having on the students in his three classes. At one point I stated, "Ethically I can not allow you to remain in the classroom and become an intern if you do not have your heart in teaching and do not have the interest of the students as your priority."

I was also concerned about the students he would be teaching in his fourth semester intern position. I insisted that he reevaluate his commitment to remaining in the program. I suggested several interventions that required his reflections. I required that he review his videotape of his teaching again and that we view and discuss the videotape together. As we collaboratively viewed the videotape, his perceptions of what was going on were very narrow. I tried to probe, to get inside



his head to find out what he was thinking, what influenced his decision-making. I wanted him to inquire into his practice so he could articulate what particular things were going well and why, what was not going well and why. I focused on how he was making sense of the situation. I wanted to understand how he was thinking about his teaching and his students' learning.

A number of concerns arose during the videotape viewing. Ryan stated that he did not respond to student cues because he wanted to accomplish his lesson objectives. Other comments revealed that he was caught up in what the students said about him. He blamed the students when there were problems. He stated that the students were lazy and not motivated. He said they did not do their homework and therefore it was impossible to motivate some of the students. He did not feel that he had any influence on their behavior.

Ryan ignored off task behavior. When the behavior became too disruptive, he became punitive. When asked why he thought the students were disruptive at the beginning of class, he responded, "the rain". I was surprised by his superficial explanation for the students' behavior. However, research has found that preservice teachers often attend to surface features rather than explore underlying causes (Cole & Knowles, 1993; Westerman, 1996).

Ryan later revealed his thoughts about the video review and my questions about student behavior:

Dr. Freese was more concerned about how my actions affected the lesson. Dr. Freese believed that my teaching needed to set the tone and not environmental factors, such as rain. By referring to the rain, I indicated that control of the class relies more on the environment than on me.

After the review of the videotape, I asked him to watch it again and this time respond to a list of questions I had developed. See Appendix A for the questions.

Ryan's behaviors suggested that he was in a state of denial of his problems. One of the things I wrote after our conference was:

I began to think that when the students misbehave or don't listen to you that you disengage or distance yourself from them. This may be a type of defense mechanism that results in your taking a position that looks as though you don't care. I am concerned that you are experiencing a high level of anxiety about your internship next semester. I worry that if your fears about the students are confirmed when you face your new classes, that you may disengage from the students early on. I want you to feel empowered, to know that you can be successful. The key question I have is whether you are committed to next semester? Are you just going to be going through the motions or will you be committed to providing the appropriate learning environment and learning events to meet your students' needs?

A second intervention I recommended was for Ryan to visit an exemplary teacher who had many of Ryan's students in her class. I wanted him to focus on specific teaching behaviors she incorporated, as well as observe his students' behavior in her class. I required a written reflection and interpretation of what he saw. In addition, I provided a list of specific teaching behaviors I wanted him to focus on during the observation. I wanted him to recognize characteristics of effective teaching and to identify specific strategies.

Again, I did not find out his reaction to my request until I read his paper at the end of the program. Ryan stated in his reflective action research paper:

At first, I was reluctant to observe Ellen because I believed she was a very nurturing teacher. My belief was based on descriptions given by the other MET students during the first semester. I stubbornly decided not to see Ellen because these "hear say" descriptions contradicted my impartial, logical, and scientific teaching style. I visited Ellen's class only because Dr. Freese told me to do so. While I observed though, I was shocked to see my students behave so well. This shocker led me to analyze what it was about Ellen that soothed my students. In addition, she came up to me towards the end of class to provide her rationale of the lesson and what

had been done to set the routines in her class. Her teaching impressed me and I realized that my preconception of her was incomplete. Ellen was nurturing, but she was also structured, and she clearly explained her expectations to her students. Hence, I realized through her teaching that not all my beliefs are correct or complete. This is why I consider my observations of Ellen to be the starting point of my growth because it catalyzed my willingness to accept suggestions that contradict my beliefs.

Ryan's observation indeed proved to be a turning point. He had evidence that served as a counter example to his earlier assumptions of the teacher as "touchy-feely". He had evidence that contradicted his beliefs about his students, that they are lazy, unmotivated and in control of the class. These counter examples to his beliefs were critical to his growth. As a scientist he was not willing to alter his beliefs until he had concrete evidence that contradicted his belief system.

Ryan stated in his paper, "Only until my observations of Ellen challenged one of my strongly held beliefs was I ready to accept suggestions." This comment says something valuable about his prior experiences and schooling as a scientist. His belief had to be disproved for him to see a different perspective. In order for him to reframe his thinking he needed evidence. Although he clung to some strongly held beliefs, when a contradiction in his thinking was exposed through a counter example, he was willing to see it differently.

The beginning glimpses of his willingness to see a different perspective from his rigidly held beliefs and assumptions came when he opened his eyes to other perspectives. During the remainder of the semester Ryan's attitude and commitment gradually changed.

#### 6.4. *Fourth semester*

Typically in the fourth semester, MET preservice teachers are placed in classrooms in the Hawai'i Department of Education schools to fill a vacant full time teaching position. These positions are made available as a result of a teacher

going on a leave of absence (sabbatical, sick leave) or retiring. The preservice teachers, referred to as interns in the fourth semester, teach full time and receive a stipend. In addition to a university supervisor, the interns have an intern mentor (one of the teachers from the professional development school released from teaching responsibilities to assist in visiting and supporting the interns during the semester). The intern mentor visits the interns at least once a week. The university supervisors visit the interns a minimum of five times throughout the semester to provide support and guided assistance. Thus, the interns receive the support and guidance from two professionals.

In Ryan's case, adjustments were made to allow him to continue in the professional development school and continue to teach the same three physics classes and take over one other class from another teacher. I felt that if he could stay in the partnership school he would receive more support and scaffolding. I wanted him to have opportunities to experience success, gain confidence, and find out "Who he was."

It was not until the middle of the fourth semester internship that he began to acknowledge words of support and encouragement. He began to shift his identity from student to teacher. He stated that encouraging comments in the fourth semester made him feel as "if they saw me as a colleague, rather than a student teacher". Probably what is most revealing about Ryan's comment is that he began to see himself differently. He began to take responsibility for his actions and his problems. He also began to shift his focus from himself to the students. In his action research paper, Ryan remarked, "I realized that my actions and feelings as a teacher affect the growth of these young adults. Thus, it is an imperative that I reflect on how I affect my students in order to provide the most optimum learning environment."

Ryan realized that there were no formulas or recipes for learning to teach. He acknowledged that teaching goes beyond common sense and involves finding one's professional identity. He discovered that the answers to handling difficult situations regarding how to teach could be found within himself (Britzman, 1991; Cole & Knowles,

1993). Ryan's journey from student to teacher was fraught with challenges and obstacles. His decision to reflect on his journey provided him with the opportunity to find out more about himself and gain insight into his perceptions and interpretations of the same events.

## 7. Obstacles to Ryan's growth

The chronological profile of Ryan provided a context for understanding his growth and development. The following section provides the results of a content analysis from the following data sources: my observations, conversations, and Ryan's paper. Ryan's reflections reveal how his perceptions served as obstacles that influenced his behavior and attitudes over the 2-year period. The following themes emerged from the content analysis: fear, responsibility, contradictions between his beliefs and practices, and closed-mindedness.

### 7.1. Fear

Fear was a recurring theme that impacted Ryan's attitude and behavior. By his third semester he became a prisoner of his fears. He stated that his "fears intertwined with feelings of blaming and anger, were fueled by his feelings of frustration and inadequacy". He spoke of his "fear of idiocy", and his "fear of failure". He stated that his frustrations increased his fears and made him more stubborn. "My frustration was worsened by my ego leading me to think that I gained enough experience to wisely judge what was best for my teaching. The source of my ego derives from my reliance on my intelligence to get me through in life."

His fear of failure and fear of idiocy prevented Ryan from confronting his problems and asking mentors or colleagues for help. His shutting down was a defense mechanism for having to face his worst fear, which was failing. Problems went unresolved because of his paralyzing fears. In fact, he stated that he ignored the mentor's and my suggestions because by ignoring them, it prevented him from failing.

Although his fears were an obstacle throughout most of his third semester, it was actually his fear of failing the MET program that eventually motivated him to become more receptive to suggestions. He stated that, "the threat of failing in MET permitted me to heed suggestions better and helped prepare me to observe a social studies teacher, Ellen, with an open eye". It was his eventual fear that he might not be able to continue in the MET program that served as a "wake up call" for considering perspectives other than his own. The interventions, his visitation and videotape analysis, forced him to see contradictions in his beliefs and views about teaching.

### 7.2. Responsibility

In addition to his fears, Ryan was unable to take personal responsibility for his problems. Throughout his third semester Ryan blamed others for his difficulties (students, counselors, parents, mentor teacher). He revealed that, "Assigning blame on others or others' comments is easier than accepting blame and possible failure. I commonly avoided failure by not considering their feedback and suggestions at all during the third semester." He revealed that he did not incorporate suggestions because he felt that if the suggestions failed, that he would have given up and felt he was a failure. He blamed the mentor rather than accept personal responsibility or blame. He felt that he could avoid failure by ignoring feedback, "Avoiding failure alleviated stress because it allowed me to mask any problems with my teaching."

### 7.3. Contradictions between his beliefs and practice

In addition to his fears and blaming stance, another factor that emerged was the contradiction between his beliefs and his teaching practice. Wiggins and Clift (1995) discuss how contradictions occur when student teachers verbalize certain beliefs, but they do not apply the beliefs in their own classroom. Wiggins and Clift (1995) call these contradictions "oppositional pairs" (p. 10). An example of an oppositional pair in Ryan's teaching involved his belief "that learning takes place through 'hands on' experiences and other

student-centered methods”. He stated that he believed in involving the students in group activities and labs. However, in reality, he lectured to his students and used a teacher-centered approach. He later admitted in his paper, “I felt that lectures would be the only way my students would learn physics correctly. I did not trust my students to learn the right way if I permitted too much group work and other student-centered approaches.” In his philosophy of education, he stated that he wanted a positive learning environment, but in the classroom he found himself becoming punitive with the students and this contributed to a negative environment.

Another contradiction or “oppositional pair” involved his stated belief that he knew that his mentor teacher was there to help him. He acknowledged that his pride and “fear of looking foolish” got in the way, and therefore he did not want to ask questions. He stated, “I believed that John was there to help me, but I ignored his suggestions to improve my teaching. I ignored John and I failed to recognize that this was hurting my growth as a teacher.”

Although Ryan was respectful of his mentor, at the same time he blamed him for his problems, “I was angry with John because I did not feel he was helping me at all.” He saw his mentor as the authority figure and this conflicted with the notion of a “critical friend”. The MET philosophy of the mentor and preservice teacher collaborating and co-inquiring into learning and teaching together went against the grain of his prior educational experiences. Ryan could not identify with the collaborative, non-judgmental, approach of his mentor. His beliefs got in the way of developing a collaborative relationship with his mentor.

During his student teaching, Ryan was not aware of these discrepancies or contradictions in his thinking and practice. His awareness came during his internship when he analyzed and reflected on the data sources for this paper. In his own words, he explained how his thinking got in his way of his development:

My intelligence also inhibited me to appreciate the MET seminars, which were designed for the MET students to learn from their peers and

superiors. I rarely participated in the seminar discussions because most of the resolutions to these discussions were common sense. I now realize the common sense of the seminars was not demonstrated by my teaching.

#### 7.4. *Closed-mindedness*

Ryan expressed that he relied on the way he was taught and was not open to taking risks. His prior experiences as a student and his personal practical theories influenced his beliefs about teaching and learning. Personal biography and educational experiences influenced how he perceived teaching and learning.

He stated that if he tried something, and it did not go right, he abandoned it quickly and dismissed it as not an effective approach. This is similar to what Knowles and Holt-Reynolds (1991, p. 97) described, “When the practice or method does not proceed as planned or imagined, they assess the resulting situation and blame the method itself as the source of the failure.”

Ryan’s retrospective reflection indicated that he was not committed to improving his teaching:

My half-heartedness came to a stand still midway through the third semester when I told Dr. Freese that I would remain in the MET program just to get the degree. This disturbed Dr. Freese because she was concerned about the quality of teaching my students would receive through my undedicated approach. In a following meeting, Dr. Freese hinted that I drop out of MET because of my half-heartedness. This was truly an eye opener for me because dropping out would represent the first huge failure in my life. Thoughts of being a failure to myself, to my parents, to my grandmother, and to my professors enormously scared me.

Over time Ryan gradually moved from his closed rigid stance to a more open-minded position. In addition, he became more committed to his teaching. By the middle of the fourth semester, he began to gain confidence in himself and exhibited a willingness to problem solve, to search for ways to put his own personal stamp on his teaching. He began to integrate strategies from

different teachers that were compatible with his beliefs and philosophy. He went through a process that involved moving from strong emotions of fear, frustration, blaming others, shutting down, to reflecting and seeking balance in his teaching.

His eventual willingness to critically reflect upon his prior educational and cultural experiences was a significant factor in his personal and professional growth. His self-reflection and systematic analysis of the dialogue journal and his videotapes helped him reframe and reconstruct his experiences, to see things differently, and to come to a deeper understanding of himself as a person and as a teacher.

## 8. What did Ryan discover?

Ryan's growth and development were the result of many different factors. His growth during the fourth semester was marked by his change in attitude toward himself and his students. Ryan's reflections illustrate that when he moved to a disposition of open-mindedness, he was ready to see viewpoints other than his own. He became more open to suggestions. He began to take personal and professional responsibility for his work. He moved from a blaming stance and a position of denial to admitting that he needed to solve his problems.

Ryan's readiness to reflect on his teaching was marked by an open-mindedness and wholeheartedness to understand and improve his teaching. Evidence of his willingness to take responsibility for his learning is demonstrated by the self-study (Hamilton, 1998) he conducted. In his study, he systematically analyzed important data sources such as his dialogue journal and his teaching videotapes. Analyzing these sources of data allowed him to explore his growth during his student teaching and internship. These data sources objectively document his development and provide evidence of his willingness "to scratch beneath the surface" and analyze what he was doing and what its effect was on his students. Ryan adopted these attitudes toward the end of his 2 years in the program and as a result he framed and reframed his thinking about teaching. He

began to take responsibility for his actions and was more wholehearted about his commitment to teaching. He moved from the stance of student to teacher.

### 8.1. Dialogue journal

Ryan analyzed the dialogue journal by reading through the comments over and over to discover recurring problems and to generalize the problems into themes. He identified seven recurring themes/areas of concern that emerged from his analysis of his third semester dialogue journal. These areas include engagement, structure, consistency/follow through, setting routines, assessment, instructional strategies, relate to students' prior knowledge. The first column of the table lists the themes (see Table 1). Ryan then identified general descriptions of the themes and examples of the mentor's comments taken from the dialogue journal. The second column contains the descriptions of the themes (see Table 2). The third column includes Ryan's analysis of these themes and how they relate to improved student engagement and learning. His analysis indicates the importance of his instructional and management behaviors in relationship to the students' behaviors. His analysis suggests his shift in thinking from his earlier position that the students control what is happening in the classroom to his awareness of how the behavior of the teacher impacts on the students' behavior.

### 8.2. Videotape analysis

Ryan used four of the themes that emerged from his analysis of the dialogue journal (engagement, structure, consistency/follow through, and setting routines) to systematically analyze two videotapes of his teaching. He chose to analyze a videotape of his teaching from the third semester as well as one from his fourth semester. Table 2 shows the analysis of the third semester videotape. Table 3 shows the fourth semester videotape analysis. Both tables are structured in a similar format. The first column lists the four themes. The second column contains a description of observations of student and teacher behaviors as observed on the

Table 1  
MET dialogue journal analysis

Category	Description	Analysis
Engagement	Keeping students active throughout the class period. Grab students' attention with various activities that are broken into ten to fifteen minute blocks. Comments from Ryan range from identifying which activities are engaging and how I can improve student engagement in the classroom.	Continuously engaging students shows that the students' learning is valued for the whole period.
Structure	Providing my academic and behavioral expectations for each assignment. Responding and stating the objectives for each lesson.  Answering why are we doing this.	Clearly providing my expectations helps reduce student confusion and frustration. Reducing student confusion and frustration permits more opportunities for student learning. Stating my objectives assures the importance and validity of my lesson and assignments to the students and myself.
Consistency/following through	Giving consequences when academic and behavioral expectations are not met. Being stern when giving consequences. Keeping an eye out for bad academic and behavioral habits. Be consistent in giving and the type of consequences when bad academic and behavioral habits are exemplified.	Students will continuously test the types of behaviors the teacher will permit. If the teacher does not follow through and is not consistent with his or her consequences, then he or she is not clearly communicating to his or her students of what are his or her behavioral expectations.
Setting routines	Set routines that should be done before, during, and after the lessons.	Improves the efficiency of the class by structuring the things students should perform throughout the class.
Assessment	Watch whether students comprehend the ideas I am presenting in my lessons.  Utilize check questions and student faces to assess whether student learning is occurring.	Even though I may think I am doing a thorough job in explicating my ideas, the students may not think so. Continuously assess students' learning in order to reduce confusion and frustrations.
Instructional strategies	Address the audio and visual learners by using verbal and visual demonstrations.	Employing audio and visual modes reinforces the concepts presented in my lessons.
Relate to students' prior knowledge	Improves the students' understanding of my lesson's topics by relating how these topics are a part of or affect the students' lives.	As seen in my action research on questioning, being able to relate to the students' lives provides a foundation to scaffold or enhance more information.

videotape. In the third column, Ryan analyzes how his lack of student engagement, structure, consistency/follow through, and routines impacted on student behavior and learning. His analyses of his third and fourth semester videotapes provide a comparison and contrast of the behavioral changes he implemented in his teaching. There is evidence that his instructional and attitudinal

changes in the fourth semester made a difference in the students' behavior and their learning. The fourth semester video analysis examines how specific instructional behaviors resulted in increased student engagement, time on task and a focus on learning, as opposed to a focus on management. His findings show his shift from a sense of helplessness to one of taking responsibility



Table 2  
Third semester video analysis

Category	Description	Analysis
Engagement	Several students are disengaged. Two girls interrupt my lecture by walking around the classroom. One girl looks at her water bottle for most of the period. A girl and a boy at least twice fight over school supplies.	Lack of structure and consequences conveys to the students that learning is not important in my classroom.
Structure	No agenda was explicated. No purpose for the lecture was discussed.	Students had no clue of what was expected of them because I did not give the appropriate structure to the lesson.
Consistency/following through	I stopped teaching at least seven times totaling about three minutes. I discussed the students' behaviors in a mundane lecture for roughly four minutes.	Total learning time wasted in this lesson because of misbehaviors is seven minutes. Part of the problem is that I provided no consequence for wasting class time, except for wasting more class time with a lecture on the students' behaviors.
Setting routines	Students did not follow the learning log at the beginning of class. Students require several seconds before they respond to me looking at my watch.	Consistent consequences are not given when students do not meet my expectations.

Table 3  
Fourth semester video analysis

Category	Description	Analysis
Engagement	Students are assigned tasks throughout the lesson. For instance, the boys must monitor their behaviors and a girl from each row must answer one of my questions. Student-centered activities, such as Bernoulli's Lab Stations, were provided.	By assigning every student a task, I kept the students on their toes and limited the amount of unfocused students. Student-oriented activities, such as labs, made the students active participants of their learning.
Structure	The agenda was written and verbally given at the beginning of the class. Detailed instructions were stated for the Bernoulli's Lab Stations.	The agenda and explicit instructions provided the students with the objectives that were to be accomplished and how these objectives were going to be achieved.
Consistency/following through	The students' misbehaviors had to be addressed only three times.	Reinforcing consequences of misbehaviors reduced the amount of time wasted on checking the students' behaviors.
Setting routines	Learning logs are given at the beginning of every class day.  Looking at my watch and saying, "I am still waiting for everybody's attention" are attention indicators that have been built throughout the semester.	Daily routines kept the students focused on learning and reduced the amount of confusion that occurred in the classroom. Providing the same physical and verbal cues throughout the semester clearly indicated the type of behaviors expected by the students. These routines could not be achieved without consistency and following through of my expectations and consequences.

for his teaching. His attitude shifted from blaming others to a willingness to critique and improve his teaching, and to focus on the students' learning as opposed to focusing on himself.

Ryan's growth and development were the result of many different factors. However, a very significant factor in his growth and development was his shift in attitude from resistance to a willingness to improve his teaching by reflecting on his journey. His self-awareness is revealed in the following quote:

In the two years of MET, I have become accustomed to the principles of inquiry, collaboration, and reflection. Inquiry and collaboration were easy to get used to because these principles are similar to two collaborating scientists inquiring into the mysteries of physics. Reflection is a different story. ... Even though a physicist reflects on his or her experiment's effectiveness, he or she does not look at reflection with the same eyes as a teacher. This difference occurs because a teacher does not manipulate electrons or pi mesons, but works with ever-changing teens.

Ryan's words and actions during his final semester show how he reframed his thinking. His self-awareness is revealed in the following quote, "The final and most important principle, reflection, demands the MET student to meta-cognitively think of why what happened, happened."

## 9. What did I discover?

Am I a better teacher educator as a result of this collaborative self-study? What lessons have I learned? Can this study help future preservice teachers, mentor teachers, and teacher educators gain insight into the complex process of learning to teach, as well as gain insight into the struggles that some of our students encounter? The unique opportunity of getting "inside my student's head" helped me gain an appreciation and understanding of Ryan's difficult journey from student to teacher. In his paper, he answered some very crucial questions that were going through my mind from time to time: "Why is he not making the suggested

changes? How can I help him to be more reflective? Why is he so rigid and closed-minded?"

In his retrospective reflections, Ryan explained why he responded the way he did. His honest reflections and systematic analysis of his teaching helped me "see with new eyes" the struggles, contradictions, and debilitating fears that preservice teachers may encounter. I misinterpreted his behaviors as either stubbornness or lack of motivation. I now realize that some students are nearly paralyzed by fear. It is essential that I help students identify their fears, their beliefs, and "oppositional pairs" in order to help them achieve their potential.

This study helped me realize that my interpretation of Ryan's behavior and the obstacles he faced was inaccurate. I need to find ways to help students increase their awareness about themselves and inquire into their teaching. The challenge is to do this in a way that does not result in resistance, defensiveness or shutting down.

As I reflected on my assumptions during the ups and downs of our journey, I realized that I experienced a tension in terms of providing support and guided assistance. The supervisory role requires that the teacher educator maintain program standards and student accountability, while at the same time assuming the role of coach or "critical friend". Feiman-Nemser (1990) refers to this dilemma as "assistance versus assessment". I believe teacher educators must walk a fine line in terms of assistance and assessment. Part of the tension arose from my attempt to assist Ryan by making adjustments for him. For example, because of his resistance to maintaining a journal, I relaxed his requirements. I did not push him to be reflective and write in his journal. By doing this did I enable him in such a way that he did not have to meet the same expectations as the others?

Like Ryan I learned that my ego may have gotten in the way of my actions. Was I afraid his failure might reflect on me? I identified one of my own contradictions of practice. I do not want to enable my students, yet at the same time because of my fear of them failing, I behave in enabling ways. In addition, I have learned that there are obstacles that may prevent some students from wanting to take risks or try to discover their

teacher selves. Some of these obstacles may include fear of failure, peer pressure, prior beliefs, ego, attitudes, and dispositions.

I learned that some students may rationalize their behaviors to support their own preconceived notions and schemas for teaching. I need to be able to help the students, particularly ones who exhibit rigid beliefs, to see things from different perspectives, to discover counter examples to their beliefs. I need to help them identify and connect their beliefs with their prior experiences, and align their beliefs with their practice. I learned that just as I advise my students to see things from different perspectives, I also need to do this. Ryan's interpretations were filtered through his lenses of prior experiences and, at times, unrealistic expectations. Perhaps the same could be said for me. My interpretations of his behavior, as well as our interactions, were filtered through lenses affected by prior experiences with struggling student teachers, by my beliefs and theories based on working with hundreds of student teachers. I thought I could explain and understand his behavior because of my prior experiences. But now I realize that my interpretations did not necessarily apply to Ryan's situation and did not have the benefit of his unique perspective on his experiences. I acknowledge that it is difficult to reach every single student, but it is critical to listen for the uniqueness of each student's voice.

And finally, I learned the value of incorporating a variety of activities to foster reflection. For example, I learned the usefulness of collaboratively viewing and discussing the student's videotape after the student conducted his analysis. In Ryan's case, the collaborative viewing of the videotape together was a turning point in helping him move from a position of denial to a problem-solving mode. The videotape provided an objective presentation of the classroom interactions and events. Using the videotape helped Ryan and I collaboratively probe and examine the complexities of teaching and learning in an objective and neutral context. The videotape can also be a useful vehicle for addressing the inconsistencies and contradictions in a preservice teacher's teaching.

## 10. Implications for teacher educators

I believe this study can help future preservice teachers and teacher educators gain insight into the complex process of learning to teach. This collaborative study invites the reader to see connections between one's own experiences and those of Ryan and myself. The insights gained from this study can encourage teacher educators to be sensitive to the range of experiences and emotions preservice teachers confront as they enter into the culture of the schools and move from being a student to a teacher.

Although there have been a number studies about preservice teacher development, most studies have explored their development over a period of one semester (Fuller, 1969; Piland, 1992; Piland & Anglin, 1993; Pogue, 1969; Sacks & Harrington, 1984). This study is significant because it traces the student's development and growth over an extended period (four semesters) including the student teaching and intern semesters. The study argues for extended student teaching experiences whereby students can gain confidence through a variety of different teaching experiences with the support and guided assistance of different mentors. As a result of his experiences, Ryan found that it was his responsibility to draw from the different models to discover the kind of teacher he wanted to become.

Working with preservice teachers can be puzzling and surprising, particularly because they are students at the same time that they are learning to be teachers. Schön (1987) uses the phrase "giving reason" to explain the important task of teachers to understand "kids knowledge". Schon's phrase can be applied to teacher educators. As teacher educators we need to explore our preservice teachers' thinking and "give reason" to their actions, since the preservice teachers' knowledge or view of teaching may be quite different from the mentor's or supervisor's views of teaching and learning. I realize at times I had my eyes focused on the end product and was not in touch with the developmental process Ryan was going through. This study can provide insight into the process.

Based on the understandings that emerged from this study, I offer the following suggestions for

teacher educators in assisting preservice teachers to discover their teacher selves. It is important to help students identify inconsistencies between their beliefs and practices and to discover counter examples to strongly held beliefs. In addition, preservice teachers must learn to assume personal responsibility for their actions and performance and not blame the students or others for their problems. To be a learner requires the consent of the learner (Loughran & Northfield, 1996). Therefore, it is essential that the learner is open to learning and seeing multiple perspectives. It is important that preservice teachers acquire a discovery, problem-solving mode that allows them to inquire and examine their teaching and the students' learning through reflection and inquiry. As a result of this study I have learned that for the inquiry–reflection cycle to successfully become a habit of mind, it is important to help students develop the following attitudes and dispositions essential for reflection: open-mindedness, responsibility, and wholeheartedness (Dewey, 1933).

In closing, I believe Ryan's words at the end of his paper capture the essence of what it means to reflect and inquire into one's practice, "If it were not for this paper, I would not have realized the full extent of the changes that occurred in my student teaching. This paper forced me to open the doors to the person I am. Even after writing this paper, I will leave the doors open so that I continue to grow and learn about myself."

Ryan's journey and my journey were intertwined through our collaborative study. His journey became a mirror for me to reflect on my practice. Feldman (2003) contends that "to improve our teacher education practices we need to change our ways of being teacher educators" (p. 27). Ryan's self-study has helped me see more clearly what it means to learn to teach. Understanding the process from the perspective of a preservice teacher has provided me with invaluable insight for improving my practices and finding new ways to approach my role as a teacher educator. And like Ryan, I will "leave the doors open so that I continue to grow and learn about myself" and teacher education.

#### **Appendix A. List of questions to review videotape analysis**

1. Select three examples of direction giving that occurred in the lesson. Explain why you selected these key examples and how you could improve on your directions and instructions, noting how to make them explicit. What could you have said to make things clearer for the students?
2. Select and analyze key incidents relating to classroom management. Indicate why you selected the key incidents and discuss what you could have done to improve classroom management. What specifically could you have said? What do you mean by needing their cooperation? What does this look like in terms of their behavior?
3. With regard to student understanding: Are there examples where you could help the students make connections across the activities you were doing? What about giving an overview of what they will be doing and why?
4. What are some of the students' questions that came up during the class? Write out examples of student questions. Explain what you did to address the questions. Please explain what you think was going on in the students' heads when they asked those questions. What might their questions tell you about their understanding or lack of understanding?
5. Did you give the students a sufficient overview of what you were going to do during your lesson? Would it be helpful for you to communicate to the students how you were going to help them fill out the form? Why or why not? Might it be helpful to tell them that you were going to go over each item one by one? Why or why not?
6. What kinds of questions did the students have in the previous class when you taught this lesson? What did you learn from the students' questions or behaviors in the previous class? What did you do differently as a result of the previous class?
7. How much time were students on task after you told them to collect their data toward the end of class? Please give time in minutes.
8. Explain how what you do or not do in the class impacts student behaviors and student learning?

What could you do differently in this particular lesson to positively change the students' behavior and learning?

9. Last part of the video—What could you have done differently? Be specific with regard to classroom management and student learning?

## References

- Ashton, P. (1996). Improving the preparation of teachers. *Educational Researcher*, 25(9), 21–35.
- Baird, J. R. (1990). Individual and group reflection as a basis for teacher development. In P. Hughes (Ed.), *Teachers' professional development*. Australian Council for Educational Research.
- Berry, A., & Loughran, J. J. (2002). Developing an understanding of learning to teach in teacher education. In J. Loughran, & T. Russell (Eds.), *Improving teacher education practices through self-study* (pp. 13–29). London: Routledge.
- Boud, D., & Feletti, G. (1991). *The challenges of problem-based learning*. New York: St. Martin's Press.
- Britzman, D. (1991). *Practice makes practice: A critical study of learning to teach*. Albany, NY: SUNY Press.
- Bruner, J. (1990). *Act of meaning*. Cambridge, MA: Harvard University Press.
- Bullough, R. V., & Knowles, J. G. (1991). Teaching and nurturing: Changing conceptions of self as teacher. *Qualitative Studies in Education*, 4, 121–140.
- Cochran-Smith, M. (1991). Learning to teach against the grain. *Harvard Educational Review*, 61(3), 279–310.
- Cochran-Smith, M., & Lytle, S. L. (1993). *Inside/outside: Teacher research and knowledge*. New York: Teachers College Press.
- Cole, A., & Knowles, G. (1993). Shattered images: Understanding expectations and realities of field experiences. *Teaching and Teacher Education*, 9(5/6), 457–471.
- Conle, C. (1999). Why narrative? Which narrative? Our struggle with time and place in teacher education. *Curriculum Inquiry*, 29(1), 7–33.
- Conle, C. (2003). An anatomy of narrative curricula. *Educational Researcher*, 32(4), 3–15.
- Connelly, F., & Clandinin, D. J. (1994). Telling teaching stories. *Teacher Education Quarterly*, 21(1), 145–158.
- Darling-Hammond, L. (Ed.). (1994). *Professional development schools: Schools for developing a profession*. New York: Teachers College Press.
- Dewey, J. (1929). *Experience and education*. New York: MacMillan.
- Dewey, J. (1933). *How we think: A restatement of the relation of reflective thinking to the reflective process*. New York: Heath and Company.
- Duckworth, J. (1987). *The having of wonderful ideas and other essays on teaching and learning*. New York: Teachers College Press.
- Feiman-Nemser, S. (1990). Teacher preparation: Structural and conceptual alternatives. In W. R. Houston, M. Haberman, & J. Sikula (Eds.), *Handbook of research on teacher education* (pp. 212–233). New York: MacMillan.
- Feldman, A. (2003). Validity and quality in self-study. *Educational Researcher*, 32(4), 26–28.
- Fuller, F. F. (1969). Concerns of teachers: A development of conceptualization. *American Educational Research Journal*, 6(2), 207–226.
- Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory*. Dallas: Houghton Mifflin.
- Hamilton, M. L. (1998). *Reconceptualising teaching practice: Self-study in teacher education*. London: Falmer Press.
- Knowles, J. G., & Holt-Reynolds, D. (1991). Shaping pedagogies through personal histories in preservice teacher education. *Teachers College Record*, 93(1), 87–113.
- Korthagen, F. A. J., Kessels, J., Koster, B., Lagerwerf, B., & Wubbels, T. (2001). *Linking practice and theory: The pedagogy of realistic teacher education*. Mahwah: Lawrence Erlbaum Associates.
- Lawrence-Lightfoot, S. (1983). *The good high school: Portraits of character and culture*. New York: Basic Books.
- Loughran, J. J. (1996). *Developing the reflective practitioner: Learning about teaching and learning through modeling*. London: Falmer Press.
- Loughran, J. J., & Northfield, J. R. (1996). *Opening the classroom door: Teacher, researcher, learner*. London: Falmer Press.
- McEwan, H. (1996). Concerning the Master of Education In Teaching program. *Educational Perspectives*, 30(1), 2–4.
- Munby, H., & Russell, T. (1990). Metaphor in the study of teachers' professional knowledge. *Theory into Practice*, 29(2), 116–121.
- Myers, C. B., & Simpson, D. (1998). *Re-creating schools: Places where everyone learns and likes it*. Thousand Oaks: CA: Corwin.
- Piland, D. E. (1992). *The developmental stages of student teachers: A descriptive study*. Unpublished dissertation, The University of Akron, Akron, OH.
- Piland, D. E., & Anglin, J. M. (1993). It is only a stage they are going through: The development of student teachers. *Action in Teacher Education*, 15(3), 19–26.
- Pogue, G. (1969). Developmental stages in student teaching. *Supervisors Quarterly*, 5(1), 39.
- Postman, N. (1995). *The end of education*. New York: Knopf.
- Richardson, V. (1989). The evolution of reflective teaching and teacher education. In R. Clift, W. R. Houston, & M. Pugach (Eds.), *Encouraging reflective practice: An examination of issues and exemplars*. New York: Teachers College Press.
- Russell, T. L. (2002). Guiding new teachers' learning from classroom experience: Self-study of the faculty liaison role. In J. Loughran, & T. Russell (Eds.), *Improving teacher education practices through self-study* (pp. 73–87). London: Routledge.
- Sacks, S. R., & Harrington, G. (1984). Novel strategies for achieving the transition. *Journal of Education for Teaching*, 10(2), 154–163.

- Schön, D. A. (1983). *The reflective practitioner: How professionals think in action*. New York: Basic Books.
- Schön, D. A. (1987). *Educating the reflective practitioner*. San Francisco, CA: Jossey-Bass.
- Tom, A. (1997). *Redesigning teacher education*. Albany, NY: State University of New York.
- van Manen, M. (1991). *The tact of teaching: The meaning of pedagogical thoughtfulness*. Albany, NY: State University of New York Press.
- Westerman, D. (1996). Expert and novice teacher decision-making. *Journal of Teacher Education*, 42(4), 292–305.
- Wiggins, R. A., & Clift, R. T. (1995). Oppositional pairs: Unresolved conflicts in student teaching. *Action in Teaching Education*, 17(1), 9–19.
- Zeichner, K. (1996). Designing educative practicum experiences for prospective teachers. In K. Zeichner, S. Melnick, & M. L. Gomez (Eds.), *Currents of reform in preservice teacher education* (pp. 215–234). New York: Teachers College Press.
- Zeichner, K. (1999). The new scholarship in teacher education. *Educational Researcher*, 28(9), 4–15.
- Zeichner, K. M., & Liston, D. P. (1987). Teaching student teachers to reflect. *Harvard Educational Review*, 57(1), 23–48.